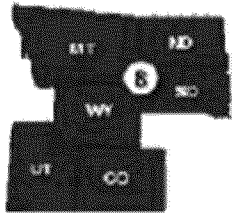


**To:** Dreyfus, Melissa G.[Dreyfus.Melissa@epa.gov]  
**From:** Keller, Melanie  
**Sent:** Thur 8/13/2015 12:17:19 PM  
**Subject:** more updates

From EPAOSC.org:

You will want to ask the EOC to print out or email you copies of the SitReps from this site, or create an account so you can gain access...



## **Gold King Mine Release Incident**

Silverton (San Juan County), CO - EPA Region VIII

Site Contact:  
**EPA Region 8**

[R08\\_EOC\\_IT\\_Support@epa.gov](mailto:R08_EOC_IT_Support@epa.gov)

County Road 52  
Silverton (San Juan County), CO 81433  
[epaossc.org/GoldKingMine](http://epaossc.org/GoldKingMine)  
Latitude: 37.8945000  
Longitude: -107.6384000

[KML](#) | [RSS](#) | [location](#) | [area map](#) | [bookmark](#)

On August 5, 2015, an EPA team working to investigate and address contamination at the Gold King Mine in San Juan County, Colorado, unexpectedly triggered a large release of mine waste water into the upper portions of Cement Creek. Initial estimates are that the release contained approximately one million gallons of water that was held behind unconsolidated debris near an abandoned mine portal. There were several workers at the site at the time of the breach, all were unharmed.

The latest updates and information on the response are available on [EPA's Gold King Mine Website](#).

8/9/2015



This morning EPA is releasing a detailed data table of the sampling in Cement Creek and the upper portions of the Animas River from August 5, the date of the incident, and August 6.

EPA expects to have new data from August 7 which is currently undergoing review and will be available to the public later today. We acknowledge frustration with the turnaround time for this information. Workers at the lab and data experts are working continuously to develop the information.

The data table contains a list of analyzed constituents, largely metals, and their numeric value in micrograms per liter, which is equal to parts per billion, or ppb.

The data table released today will include updates to the information released by EPA on August 7. The incident, which occurred on August 5, caused an increase in concentrations of total and dissolved metals as the contaminated mine water moved downstream. These concentrations began to trend toward pre-event conditions by August 6. August 7 and 8 data, when it is available, will inform whether the trend towards pre-event conditions continues.

Note: Total metals analysis for water samples includes the metals content both dissolved in the water and present in the particulates in the water. Typically a dissolved metals analysis of a water sample is performed by removing the particulates with a filter, then analyzing the filtered water for metals

## 8/8/15 STATEMENT

EPA is committed to working closely with response agencies and state and local officials to ensure the safety of citizens, respond to concerns and to evaluate impact to water contaminated by the spill. EPA teams are deployed throughout the Animas River corridor collecting data.

EPA Region 8 is also in close coordination with Region 6 and Region 9 and the states of Colorado, New Mexico, Utah, Southern Ute Tribe and Navajo Nation.

EPA is sharing information as quickly as possible with the public as experts work to evaluate any effects the spill may have on drinking water, public health, agriculture, fish and wildlife. Regular updates on the response for the public and the media are scheduled throughout the weekend. The latest updates and information on the response are available on [EPA's Gold King Mine Website](#).

### 8/8/15 Update:

- The first two days after the incident, the plume was moving at approximately 4 miles per hour. According to the EPA's ASPECT (Airborne Spectral Photometric Environmental Collection Technology) flyover, as of the morning of Aug 8th, the plume had reached the confluence of the San Juan River. As of 4:00 pm this afternoon, the plume had roughly reached Kirtland, New Mexico. The plume has been visually diluted and the leading edge of it is far less defined. The water is reported to be muddy with an orange tinge rather than solid orange.

- Sampling data from Cement Creek and the Animas River near Silverton from Aug. 5th and 6th show pH and metals concentrations are decreasing to pre-event conditions. We continue to monitor river conditions at multiple locations to detect trends. Rain events and variations in stream flows can cause the pH and metals concentrations to rise and fall.

- The data shows that pH (acidity) levels and dissolved metals in the Cement Creek and the upper portions of the Animas River spiked in the surface water at locations impacted by the contaminant plume. The data shows in the upstream locations the resident time of the plume in any one location was not long lasting. The trend downstream, in the Animas and San Juan Rivers, is expected to be similar or better than upstream, as the contaminant plume passes.

- Colorado Parks and Wildlife (CPW) officials have been monitoring the effects of the spill on terrestrial and aquatic wildlife since the incident began. CPW is watching for any impacts on wildlife, whether they are acute or chronic. Fish are especially sensitive to changes in water quality. CPW is also monitoring a control station on a clean tributary.

- Colorado Parks and Wildlife has indicated they are optimistic that the effects of the spill on terrestrial wildlife will be minimal.

- The water in Cement Creek and the Animas River in Silverton is clearing. The adit is still discharging approximately 500 gallons per minute and the trend is that flow is decreasing. The discharge is being diverted into the newly constructed ponds and treated before it enters Cement Creek. The treatment appears to be effective.

- A summary of pH and dissolved metals data is available here:  
<http://epaossc.org/goldkingmine>

#### NEXT STEPS

- Continue to treat drainage at mine site.
- Continue to sample the Animas River corridor
- Evaluate and publish data as it is finalized.
- Continue coordination with State, Federal, Tribal and local officials as well as community members, landowners/ water users.
- Continue to provide drinking water and water testing to private well owners.

###

For additional information, visit the **Pollution/Situation Report** ([Pol/Sitreps](#)) and the [Bulletins](#) sections.



### San Juan River Response

Shiprock, NM - EPA Region IX



Site Contact:  
**Randy Nattis**  
**On Scene Coordinator**  
[nattis.randy@epa.gov](mailto:nattis.randy@epa.gov)

Shiprock, NM 87420  
[epaossc.org/R9\\_SanJuanRiverResponse](http://epaossc.org/R9_SanJuanRiverResponse)  
Latitude: 36.8704828  
Longitude: -108.7892506

[KML](#) | [RSS](#) | [location](#) | [area map](#) | [bookmark](#)

On August 5, 2015, EPA was conducting an investigation of the Gold King Mine, north of Silverton, CO. The intent of the investigation was to assess the on-going water releases from the mine, to treat mine water, and to assess the feasibility of future mine remediation. The plan was to excavate the loose material that had collapsed into the cave entry back to the timbering. During the excavation, the loose material gave way, opening the adit (mine tunnel) and spilling the water stored behind the collapsed material into Cement Creek, a tributary of the Animas River. Initial estimates are that the release consisted of approximately one million gallons of water (estimated from the dimensions of the mine adit) that was held behind unconsolidated debris near an abandoned mine portal. There were several workers at the site at the time of the breach, all were unharmed.

The mine discharge water presented in the Animas River as river-bound plume, easily distinguished by its bright yellow-orange color. As of Friday afternoon, 8/7, an aerial survey conducted by EPA's ASPECT (Airborne Spectral Photometric Environmental Collection Technology) documented that the mine discharge water was clearly visible as far south as Aztec, NM (ca. 7pm on 8/7). Observations on 8/7 noted that water in Cement Creek and the Animas River near Silverton is clearing. EPA expects conditions will continue to improve in the coming hours and days. The adit is still discharging lower flows into Cement Creek. Today, EPA is rebuilding settling ponds to treat these flows – should be completed on 8/8. EPA will treat the mine water diverted to the ponds with caustic soda and flocculent once the ponds are built.

EPA is coordinating with ATSDR in response to public health concerns/questions associated with the mine discharge water plume. ATSDR has been in communication with local health officials at San Juan County Basin Health Department in Colorado. Any public health questions/concerns from public health agency representatives may be directed to Chris Poulet, ATSDR/R8 at 303-312-7013/Call: 303-312-7013.

EPA Region 8 has been coordinating with Region 6 and Region 9 and the states of Colorado, New Mexico, Utah, the Southern Ute Tribe. Region 6 is working closely with the New Mexico Environment Department (NMED) to evaluate possible impacts in New Mexico. Potentially impacted water systems have been notified and precautions are in place to ensure drinking water in homes is protected. Colorado officials are requiring all watercraft off the river, and other authorities are following suit. EPA and NMED are providing assistance to community water systems and closely monitoring the situation. Water sampling teams are on the ground in CO and NM (preliminary results are attached).

Site information, maps and sampling data are all available at:  
[http://www.epaossc.org/site/site\\_profile.aspx?site\\_id=11082](http://www.epaossc.org/site/site_profile.aspx?site_id=11082). Please request a password to view the geospatial viewer for an interactive map accessed through the webpage.

#### EPA Region 9 Activities

The discharge has yet to cross the Navajo Nation boundary, near Hogback, but Navajo officials have reacted quickly, assessing their water intake systems and issuing a precautionary "do not use" public service announcement regarding tap water. Region 9 reached out to Navajo EPA officials and subsequently were requested assist w ambient river sampling in the San Juan River. The Navajo EPA surface water monitoring program (Shiprock Office) collected water and sediment samples from the San Juan River today - prior to the spill impact. NNEPA also requested drinking water sampling support immediately for Navajo operated water intakes. Region 9 deployed 2 START contractors to coordinate

and assist them with sample collection and lab services and will assist in creating a sampling Task Force with NNEPA, Navajo water agencies and potentially the Bureau of Reclamation.

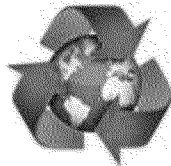
Region 9 also is deploying an OSC Rob Wise to Durango to coordinate Navajo sampling Task Force updates and results with the Region 8 incident command post and will ensure command messages get back to Navajo officials in this early phase of the response. OSC Randy Nattis will deploy to the Navajo Nation on Monday to coordinate additional field activities. Other Region 9 staff may assist with these roles.

Region 9 will also deploy a Public Information Officer (PIO) to participate in a Joint Information Center (JIC), presently in Durango, with and other the affected Federal, State, County and Tribal agencies. This person will be the point-of-contact for Navajo official and media inquiries as well. The Region anticipates coordination with Navajo agencies on public health messaging and outreach and is prepared to provide additional assistance, e.g., consultation with drinking water supply subject matter experts and community involvement resources.

### ***Melanie C. Keller***

US Environmental Protection Agency  
Office of Superfund - Remedy Decisions  
(703) 603-8706

[keller.melanie@epa.gov](mailto:keller.melanie@epa.gov)



*Let us hope that at least they will give us the benefit of the doubt,*

*that they will believe we have honestly striven every day and generation  
to preserve for our descendants a decent land to live in and  
a decent form of government to operate under.*

*– FDR, August 1936, Mt. Rushmore dedication*